In the Claims:

Claims 1-41 (Cancelled)

42. (Currently Amended) An apparatus for inspection of at least one security article incorporating a diffractive optical projection element as a security device, the diffractive optical projection element being provided in a substantially transparent or translucent portion or window in the security document, wherein the apparatus comprises:

a light source for directing a beam of light onto said diffractive optical projection element in said transparent or translucent portion or window, wherein the diffractive optical projection element ~~which~~ transforms the beam into a patterned beam of light that is reconstructed at a particular position in space to form a projected image; and

at least one optical detection device located at the position at which the patterned beam of light is reconstructed to form the projected image.

43. (Previously Presented) An apparatus according to claim 42 wherein the light source is arranged to direct a substantially collimated beam of light onto the diffractive optical projection element.

44. (Previously Presented) An apparatus according to claim 42 wherein the light source is a point light source.

45. (Previously Presented) An apparatus according to claim 44 wherein the light source is any one of:

a light emitting diode (LED); or

a halogen light source; or

a laser.

46. (Previously Presented) An apparatus according to claim 42 wherein the optical detection device is arranged to detect the amplitude of different parts of the patterned light beam forming the projected image.

47. (Previously Presented) An apparatus according to claim 46 wherein the optical detection device comprises one or more photodiodes.

48. (Previously Presented) An apparatus according to claim 46 wherein the optical detection device comprises a charge coupled device (CCD).

49. (Previously Presented) An apparatus according to claim 42 wherein the diffractive optical projection element is provided in a substantially transparent or translucent portion or window in the security article, the light source is positioned on one side of a security article and the detection means is positioned on the opposite side of the security article such that the light passes through the diffractive optical projection element so that the incident beam is transformed into the patterned beam on the opposite side of the document and projected onto the optical detection device.

50. (Previously Presented) An apparatus according to claim 42 wherein the diffractive optical projection element is provided on an underlying reflective surface, and the light source and optical detection device are positioned on the same side of the security article such that the optical detection device detects a reflected beam transformed by the diffractive optical projection element into the patterned beam and projected onto the optical detection device.

51. (Previously Presented) An apparatus according to claim 42 wherein the apparatus includes a plurality of optical detection devices.

52. (Previously Presented) An apparatus according to claim 42 wherein the apparatus includes a plurality of light sources for illuminating at least one diffractive optical projection element.

53. (Previously Presented) An apparatus according to claim 52 wherein each of the light sources causes a patterned beam to be diffracted at a slightly different point on the optical detection device, creating multiple signals at the optical detection device.

54. (Previously Presented) An apparatus according to claim 42 wherein the light source is a moving light source which produces an incident light beam that scans across the diffractive optical projection element to create multiple signals at the optical detector.

55. (Previously Presented) An apparatus according to claim 42, further including a processor for processing signals from the optical detection device, and wherein the processor analyses multiple signals to differentiate constructive diffraction produced by the diffractive optical element from a random or diffuse scattering of light.

Claim 56 (Cancelled)

57. (Currently Amended) A method for inspection of at least one security article, wherein the security article incorporates a diffractive optical projection element as a security device, the diffractive optical projection element being provided in a substantially transparent or translucent portion or window in the security document, and wherein the method comprises the steps of:

directing a beam of light from a light source onto said diffractive optical projection element, the diffractive optical projection element provided in a substantially transparent or translucent portion or window in the security document ~~which~~ transforms the beam into a patterned beam of light that is reconstructed at a particular position in space to form a projected image; and

detecting the projected image with an optical detection device located at the position at which the patterned beam of light is reconstructed to form the projected image.

58. (Previously Presented) A method of processing or handling security articles comprising a method for inspection in accordance with claim 57, wherein a signal is

generated when the absence or poor quality of a diffractive optical projection element is detected in a security article.

59. (Previously Presented) A method of processing or handling security articles as claimed in claim 58 wherein the security article is isolated or marked when the signal is generated by the optical device.

60. (Currently Amended) Equipment for sorting, handling, counting or otherwise processing security documents, the equipment including:

a detector for detecting the presence of a security document;

a window locator for locating a window in the security document incorporating a diffractive optical projection element;

a light source for directing a beam of light through said diffractive optical projection element in said window whereby the diffractive optical projection element produces a patterned beam of light which forms a projected image;

an optical detection device located at a position at which the patterned beam of light is reconstructed to form the projected image;

a processor for processing and analysing signals from the optical detection device; and

a document processing means for processing the security documents according to the signals from the optical detection device.

61. (Previously Presented) Equipment according to claim 60 wherein the processor generates a rejection signal when the absence or poor quality of a diffractive optical projection element is detected by the optical detection device.

62. (Previously Presented) Equipment according to claim 60 wherein the processor comprises a process logic controller (PLC) or a microprocessor to determine the presence of a diffractive optical projection element in the window.

63. (Previously Presented) Equipment according to claim 62 wherein the PLC or the microprocessor determines the quality of the diffractive optical projection element by inspection of the projected image formed by the patterned beam, and the PLC or the microprocessor outputs an accept or reject signal based on the quality of the diffractive optical projection element.

64. (Previously Presented) Equipment according to claim 60 further including a barcode printer, and, wherein the barcode printer prints either an accept or reject code on the security document in accordance with the output of the processor.

65. (Previously Presented) Equipment according to claim 64 wherein the document processing means processes the security documents in accordance with the code printed by the barcode printer.

66. (Previously Presented) Equipment according to claim 60 wherein the detector for detecting the presence of a security document is an edge detector which detects the edge of a security document.

67. (Previously Presented) Equipment according to claim 60 wherein the document processing means includes any one or more of the following:

a document sorter;

a counter for counting security documents; or

a document printer.